

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of:

CHEON et al.

Application No.: 10/598,480

Filed: July 6, 2007

Atty. File No.: 54577-10900

Entitled: PREPARATION METHOD OF
MAGNETIC AND METAL OXIDE
NANOPARTICLES

Commissioner for Patents
P.O. Box 1450
Alexandria Virginia 22313-1450

Dear Sir:

) Group Art Unit: 1793

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) Confirmation No. 5996

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) Examiner: Anthony J. ZIMMER

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**RESPONSE TO
RESTRICTION REQUIREMENT**

Filed Electronically

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I hereby certify that this correspondence is being electronically transmitted to the U.S. Patent & Trademark Office by the EFS-Web system on 13 January 2010.
Typed or printed name of person signing this certificate:

Carol Donahue
Signature: /Carol Donahue/

In response to a November 20, 2009 Restriction Requirement in connection with the above-identified application, Applicants hereby submit the following reply.

In the Restriction Requirement, the Examiner indicated that Claims 2-23 and 30-35 were distinct species (Groups 1-4, respectively, as designated by the Examiner).

Under MPEP § 818.03, Applicants hereby provisionally elect to prosecute Claims 1-23, and 30-35 whereby the solvent in Claim 1 is specified as an organic solvent and Claims 24-29 (which are not subject to Examiner's Restriction Requirement) with traverse and indicated that Claim 1 was generic to all groups and species.

Applicants respectfully traverse Examiner's arguments that the present application discloses claims directed to more than one species of the generic invention and that the species lack unity of invention. Applicants believe that the present application differs from cited reference, Lee et al. (U.S. Patent No. 6,572,673 ("Lee et al.")), and thus, the present application

discloses a single general inventive concept. Accordingly, Applicants traverse the Examiner's arguments with the following reasons:

The present application discloses a method of producing magnetic oxide nanoparticles or metal oxide nanoparticles. Conversely, Lee et al. discloses a process for preparing metal nanoparticles. Next, Lee et al. also discloses a process using an anionic surfactant containing an anionic group of a carboxylic group, sulfate group or sulfonate group as a reducing agent in water. On the other hand, the present application does not need any reducing agent. The surfactant in the present application is used to stabilize the surface of the magnetic or metal oxide nanoparticles and control the growth of nanoparticles. Therefore, the surfactant in the present application does not act as a reducing agent as in Lee et al. Lastly, Lee et al. discloses a process using an anionic surfactant containing an anionic group of a carboxylic group, sulfate group or sulfonate group as a reducing agent in water. However, the present application discloses the use of an organic solvent, instead of water, as a solvent. (If water is used as a solvent, the possibility of side reactions is high.) For the foregoing reasons, Applicants believe that the present application differs from Lee et al. and respectfully requests that the Examiner's November 20, 2009 Restriction Requirement be withdrawn. Accordingly, generic Claim 1 is allowable. Also as set forth in MPEP § 821.04, "[t]he propriety of a restriction requirement should be reconsidered when all the claims directed to the elected invention are in condition for allowance, and the nonelected invention(s) should be considered for rejoinder." Thus, Claims 2-35 are also in a condition for allowance.

Applicant also submits a \$65.00 one-month, small entity extension fee for this Response, thereby extending the deadline to respond to the pending Restriction Requirement to

January 20, 2010. Applicant believes no additional fees are due for this filing, however, please credit any over payment or debit any under payment to Deposit Account No. 08-2665.

Respectfully submitted,

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Dated: 13 January 2010